



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/810,836 | 03/16/2001 | Pierre Broun | MBI-0032 | 7074 |

20872 7590 05/23/2003
MORRISON & FOERSTER LLP
425 MARKET STREET
SAN FRANCISCO, CA 94105-2482

EXAMINER

LAMBERTSON, DAVID A

ART UNIT

PAPER NUMBER

1636

DATE MAILED: 05/23/2003

22

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|---------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/810,836 | BROUN, PIERRE |
| Examiner | Art Unit | |
| David A. Lambertson | 1636 | |

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 February 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-11,13-18,26 and 33-50 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,2,4,10,11,13,14,18,26,33 and 35-50 is/are rejected.

7) Claim(s) 3,5-9,15-17 and 34 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____.

2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 18. 6) Other: _____.

DETAILED ACTION

Receipt is acknowledged of a reply, filed February 26, 2003 as Paper No. 21, to the previous Office Action. Amendments were made to the claims.

Claims 1-11, 13-18, 26, and 33-50 are pending and under consideration in the instant application. Any rejection of record in the previous Office Action, Paper No. 17, mailed October 22, 2002, that is not addressed in this action has been withdrawn.

Specifically, applicant requested clarification with some issues concerning the previous Office Action, which are addressed herewith. On the Form-326 attached to the previous Office Action, claim 18 should not have been included on line 4a as being withdrawn from consideration, and claim 26 should not have been included on line 6 as being rejected.

Information Disclosure Statement

The information disclosure statement filed January 30, 2002 as Paper No. 18 has been considered, and a signed and initialed copy of the form PTO-1449 is attached to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18, 33 and 35-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. **This is a new rejection not necessitated by amendment.**

Claims 18 is indefinite because the invention is drawn to the introduction of a single member of the pool of cloned transcription factors, and it is unclear how one would de-convolute a single member to identify the minimum number of necessary transcription factors.

Claims 33 and 35-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, it is unclear as to how one determines whether two or more members of a pool of transcription factors are required for expression from a pathway gene promoter from the method steps as recited. There is a step missing whereby it is determined that the transcriptional activation is not the result of a single factor, such as the deconvolution step recited in claim 34.

Claims 38-42 recite the limitation "said pathway gene" in the preamble of the claims. There is insufficient antecedent basis for this limitation in the claims. Amending the claim to read, "said pathway gene promoter" would be remedial.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 10, 11, 13, 14 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu *et al.* (*Plant Cell* 10: 1391-1406, 1998; see entire document; henceforth Liu).

This is a new rejection not necessitated by amendment.

Liu teaches the cloning of several transcription factors, for example DREB1 and DREB2 (see for example the Abstract on page 1391 and Figure 1, page 1393), and the identification of a number of related genes (see for example Figure 7, page 1399). Each of these genes comes from *Arabidopsis* (see for example page 1392, second full paragraph), therefore Liu teaches a “pool” of plant genes encoding transcription factors as per the definition set forth in the instant specification (e.g., two or more members). Liu then teaches transiently transfecting a member of this “pool” into plant cells also expressing the GUS reporter gene operably linked to the *rd29A* plant pathway promoter and testing the ability of the member to activate transcription from this promoter (see for example Figure 9, page 1400), thereby determining whether or not the member encodes a transcription factor for the pathway. Significantly, Liu teaches that DREB1 and DREB2 both have structural similarity to the known transcription factors EREBP and APETALA2 (see for example the Abstract), therefore the members are selected based upon their structural similarity to known transcription factors. Liu further teaches measuring the expression of a different pathway gene in response to DREB1 and DREB2, specifically the *rd29A* gene (see for example Figure 11, page 1403), which is measured by Northern blot analysis. Therefore, Liu teaches all of the elements set forth in claims 1, 2, 4, 10, 11, 13, 14 and 26.

Allowable Subject Matter

Claims 3, 5-9, 15-17 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Lambertson whose telephone number is (703) 308-8365. The examiner can normally be reached on 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel, Ph.D. can be reached on (703) 305-1998. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3014 for regular communications and (703) 305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

David A. Lambertson
May 14, 2003



DAVID GUZO
PRIMARY EXAMINER